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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/519,841  
Filing Date: January 12, 2005  
Appellant(s): DIETSCHE ET AL.

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Frederick Vastine  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/18/2008 appealing from the Office action mailed 6/18/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-9 and 16-24.

Claim 1 has been amended subsequent to the final rejection.

Claim 25 is withdrawn from consideration as not directed to the elected invention.

Claims 10-15 have been canceled.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

2003/0104245A1	BERGH et al	06-05-2003
6500883	MACK et al	12-2002
6482489	OTAKI et al	11-2002
6103370	ONozAWA et al	08-2000
5334842	Van HAVENBERGH et al	08-1994
4136071	KORPMAN	01-1979
3880953	DOWNEY	04-1975
JP 0518671A	MATSUOKA	12-1993

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-9 and 16-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Mack et al (US 6,500,883) in view of (a) Otaki et al (US 6,482,489) and (b) Downey (US 3,880,953) or Korpman (US 4,136,071)

Mack teaches a filled polyamide composition comprising fillers surface modified by treatment with an organosilane and /or organosiloxane coating agent (abstract). Said composition has an impact strength as claimed (see example 5, column 8) and is used to product goods such as electronic devices and parts for motor vehicles (col 6, lines 25+). When used in such embodiments, said layer is attached to another layer (herein understood to read on the substrate of claim 8).

Mack does not teach the claimed multi-coat system. However, Otaki teaches a hologram laminate that reads on the claimed multi-coat system. Said hologram can be applied to high priced goods (Background of the invention) such as those made with the composition of Mack. Specifically, the hologram comprises a 1-50um thick UV curable urethane acrylate hard coat (col 20, lines 25+) and a styrene block elastomer adhesive having a thickness of 4-20um (col 52, lines 53+). A substrate may intervene the adhesive and the hardcoat. Said substrate is understood to read on the claimed layers of claim 2. Thus, it would have been obvious to the skilled artisan to apply the hologram to the substrate taught in Mack in order to provide an authenticating mark on said substrate.

With regards to the "clear coat" limitation, the UV curable hardcoat layer of Otaki is understood to be clear because said layer is used as an overlay of a hologram wherein the underlying layers are designed to be visible to the user.

Mack does not teach the adhesive should have the claimed Tg. However, Downey and Korpman each teach pressure sensitive adhesives comprising styrene block copolymers meeting the claimed limitations. Specifically, Downey teaches a block copolymer comprising 10-50wt% styrene (col 1, lines 45+) and Korpman teaches a block comprising 10-35wt% styrene (col 1, lines 35+). Said composition reads on the Tg limitation of claim 1 when the diene is isoprene or butadiene and on the limitation of claim 21 when the diene is butadiene. Thus, it would have been obvious to utilize either of the PSAs as the styrene block copolymer PSA taught in Mack because said PSA are taught to exhibit excellent adhesive properties.

2. Claims 1-9 and 16-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Onozawa et al (US 6,103,37) in view of (a) JP0518671 (Matsuoka) and (b) Downey (US 3,880,953) or Korpman (US 4,136,071)

Onozawa teaches a hardcoat sheet comprising a base sheet, and a coat layer which is provided on the based sheet and formed form a radiation curable urethane acrylate (abstract and col 2, lines 24+). Said layer has a thickness of 1-10um (col 3, lines 60+). The hardcoat is applied to the base sheet and an adhesive comprising styrene butadiene block copolymers having a thickness of 10-50um (col 4) is utilized to apply the laminate to a window pane (col 3, lines 63+). The window pane is then attached to another layer in use (herein understood to read on the substrate of claim 8).

With regards to the "clear coat" limitation, the laminate of Onozawa is taught to be used as an overlay for windows, televisions, and computer screens (col 1, lines 5+).

Thus, the hardcoat is understood to be clear because the overlay would otherwise not be suitable for its intended use.

Onozawa does not teach the window pane should comprise a polymer with the claimed impact strength. However, Matsuoka teaches a window pane made of polycarbonate having an impact strength of 60kg/cm/cm or more. The examiner takes the position that said impact strength is taught with sufficient specificity to read on the claimed limitation. Thus, it would have been obvious to the skilled artisan to utilize the window pane taught in Matsuoka as the window pane taught in Onozawa because said window pane has excellent impact resistance.

Onozawa does not teach the adhesive should have the claimed Tg. However, Downey and Korpman each teach pressure sensitive adhesives comprising styrene block copolymers meeting the claimed limitations. Specifically, Downey teaches a block copolymer comprising 10-50wt% styrene (col 1, lines 45+) and Korpman teaches a block comprising 10-35wt% styrene (col 1, lines 35+). Said compositions read on the Tg limitation of claim 1 when the diene is isoprene or butadiene and on the limitation of claim 21 when the diene is butadiene. Thus, it would have been obvious to utilize either of the PSAs as the styrene block copolymer PSA taught in Onozawa because said PSA are taught to exhibit excellent adhesive properties.

3. Claims 1-7, 9, 17-19, and 21-24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bergh et al (2003/0104245) in view of Van Havenbergh et al (US 5,334,842).

Bergh teaches a radiation image storage panel comprising a self-support layer, a phosphor particle containing layer, a urethane acrylate radiation curable protective layer (abstract). Said layer has a thickness of 1-20um (0042). The binder for the phosphor layer may comprise Kraton G resin, which is herein understood to read on the claimed elastomeric intercoat layer (0041) having the claimed glass transition temperature. Said layer has a thickness of 10-1000um (0041). An additional layer may be present between said phosphor layer and urethane acrylate protective layer (0036).

With regards to the "clear coat" limitation, the curable protective layer is taught to be clear (005).

Bergh does not teach that the substrate should comprise a polymer with the claimed impact strength. However, Van Havenbergh teaches the substrate of such panels should have high strength (col 17, lines 35+) and may comprise polyethylenes such as LUMIRROR) metal polyamide, polyimide and the like. Thus, it would have been obvious to utilize polyamide and polyimides, and metals with high impact strength as the substrate taught in Bergh because Van Havenbergh teaches such substrate are desirable in radiation storage panels.

#### **(10) Response to Argument**

Applicant's arguments have been fully considered but are not persuasive.

Rejection of claim 1-9 and 16-24 35 USC 103, Mack et al, Otaki et al, Downey, Korpman



*For the Board's convenience, the claims and the references have been diagrammed below:*

<b>CLAIMED INVENTION</b>	<b>Mack in view of (a) Otaki and (b) Downey/Korpman</b>
(F) radiation curable coating system	1-50um thick UV curable composition (US 841 @ col 20, lines 25+)
(E) optional coat <ul style="list-style-type: none"><li>• Pigmented or color effect</li><li>• Thickness limitation of claim 1</li></ul>	
(C) <ul style="list-style-type: none"><li>• (claim 2), second substrate (embodiment B)</li></ul>	Hologram (US'841 @ abstract)
(D) elastic intercoat <ul style="list-style-type: none"><li>• Tg of -20C or less</li><li>• (claim 5) Thickness=0.5-500um</li><li>• (claims 6-7) SIS, SEBS, SEPS</li></ul>	4-20um thick styrene block elastomer adhesive (US'841 @ col 52, lines 53+) <ul style="list-style-type: none"><li>• Downey (col 1, lines 45+) and/or Korpman (col 1, lines 35+) teaches the claimed adhesive having the claimed Tg</li></ul>
(A) substrate <ul style="list-style-type: none"><li>• Impact strength of at least 20kj/m<sup>2</sup></li><li>• (claim 3) paper, plastic, metals</li><li>• (claim 4) polymer Markush</li></ul>	polyamide with the claimed impact strength (example 5 of US'883)

THIRD SUBSTRATE (claim 8) additional layer (US'883 @ col 6, lines 25+)

E and F=top coat;  
the thickness ratio of the prior art is ( 4-20um)/ {(4-20um)+ (1-50um)}

#### Claim 1

Appellant argues Mack and Otaki are completely irrelevant to the present invention because their fields of technology are not related to the claimed "clear coat technology." Said arguments are not persuasive because the claims are not limited to a

specific technology; the claims are drawn to a "multi-coat system, on a substrate."

While the claims specify that layer (F) is a "clear coat," said limitation does not limit the scope of the claims to the field of "clear coat technologies" but rather limits the clarity of layer (F). Thus, appellant's arguments are not commensurate in scope with the claimed invention.

Appellant further argues the claimed coating is applied to engineering plastic, thereby finding utility in exterior coatings that are subject to daylight and subjected to significant stress. Furthermore, said coating systems are said to have enhanced hardness, elasticity, abrasion resistance and chemical resistance. Said arguments are noted but are not persuasive because said limitations are not claimed. Specifically, Appellants do not limit the substrate to "engineering plastics" or claim specific stress, hardness, elasticity, abrasion resistance, and/or chemical resistance properties. In response to appellant's argument that the references fail to show certain features of appellant's invention, it is noted that the features upon which appellant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Turning to Mack, Appellant argues the patent nowhere teaches or suggests a clear coat system. The examiner agrees but notes the claims are not limited to a specific field of technology for the reasons stated above. Specifically, the claims are drawn to a "multi-coat system" and are not limited to clear coat technologies

With respect to Otaki, Appellant argues the reference does not pertain to the field of "clear coat technology" but rather is concerned with the bonding of a hologram layer to a substrate. The examiner agrees but notes the claims are drawn to a "multi-coat system" and are not limited to a specific art.

Appellant further argues Otaki comprises a pressure sensitive adhesive whereas the claimed invention does not comprise said PSA. Said argument is noted but is not persuasive because it is not commensurate in scope with the claimed invention. The claim does not contain a negative limitation excluding the presence of a PSA. Furthermore, appellant does not argue that any of the pending limitations inherently exclude the presence of a PSA layer. Otaki's pressure sensitive adhesive is taught to be elastic (col 52, lines 53+) and is compositionally identical to appellant's preferred elastic intercoats. Therefore, the PSA is understood to be analogous to the claimed "elastic intercoat."

Appellant further argues the topcoat is "optional." The examiner agrees but maintains the position that the closest embodiment of Otaki comprises a UV curable topcoat which reads on Appellant's claimed layer (F).

In the rejection, the examiner notes that Otaki teaches a substrate may intervene the adhesive layer and the hardcoat layer. Appellant argues it is no clear to what the examiner is referring. Otaki teaches layers may be present between the adhesive layer and the protective layer (see Figures 3 and 4). Said layers are herein understood to read on the layer (B) of claim 2.

With respect to the motivation statement, Appellant argues Mack does not teach a substrate for holograms. The examiner agrees there is no explicit teaching in Mack. However, Mack teaches a molded product that is used to produce goods such as electronic devices and vehicular parts (col 6, lines 25+). Otaki teaches a hologram for application onto high priced commercial goods (Background of the invention). The examiner took the position that the electronic devices and vehicular parts taught in Mack would qualify as "high priced commercial goods" as taught in Otaki. Therefore, it would have been obvious to apply the hologram of Otaki to the product of Mack in order to provide an authenticating mark on the substrate.

With respect to Downey and Korpman, Appellant argues that both references are drawn to PSAs whereas the claims invention does not employ such a composition. Said argument is noted but is not persuasive because it is not commensurate in scope with the claimed invention. The claim does not contain a negative limitation excluding the presence of a PSA and no limitation inherently excludes the presence of a PSA layer. To the contrary, the claimed "elastic intercoat" is inclusive of A-B-A tri-blocks such as those taught in Downey and Korpman. The references chose to refer to these triblocks as "pressure sensitive adhesive" while Appellant prefers to call them "elastic intercoats" but they are compositionally the same (A-B-A styrene triblocks) and have the same Tg. Thus, the prior art PSA layer reads on the claimed "elastic intercoat layer" even though appellant has chosen a different label to refer to the same composition.

#### Claims 3 and 4

The claim rejection should be maintained for the reasons stated above.

Claims 5-7

The claim rejection should be maintained for the reasons stated above.

Claim 8

The claim rejection should be maintained for the reasons stated above.

Claim 9

The claim rejection should be maintained for the reasons stated above.

Claims 16-18

The claim rejection should be maintained for the reasons stated above.

Claims 19-20

The claim rejection should be maintained for the reasons stated above.

Claim 21

The claim rejection should be maintained for the reasons stated above.

Claim 22

The claim rejection should be maintained for the reasons stated above.

Claim 23

The claim rejection should be maintained for the reasons stated above.

Claim 24

The claim rejection should be maintained for the reasons stated above.

Rejection of claims 1-9 and 16-24, 35 USC 103, Onozawa et al, JP-671, Otaki et al, Downey, Korpman

*It is initially noted that Otaki is included in Appellant's section heading but is not part of the rejection.*

*For the Board's convenience, the claims and the references have been diagrammed below:*

<b>CLAIMED INVENTION</b>	<b>Onozawa in view of (a) Matsuoka and (b) Downey/Korpman</b>
(F) radiation curable coating system	Coat layer-radiation curable urethane acrylate (US'370@ abstract) <ul style="list-style-type: none"> <li>• 1-10um (US'370@ col 3, lines 60+)</li> </ul>
(E) optional coat <ul style="list-style-type: none"> <li>• Pigmented or color effect</li> <li>• Thickness limitation of claim 1</li> </ul>	
(C) <ul style="list-style-type: none"> <li>• (claim 2), second substrate (embodiment B)</li> </ul>	Base sheet (US'370@abstract)
(D) elastic intercoat <ul style="list-style-type: none"> <li>• Tg of -20C or less</li> <li>• (claim 5) Thickness=0.5-500um</li> <li>• (claims 6-7) SIS, SEBS, SEPS</li> </ul>	Adhesive-SBS block copolymer 10-50um (US'370@ col 4, lines 4-37) <ul style="list-style-type: none"> <li>• <b>Downey/Korpman teach claimed block copolymer with claimed Tg</b></li> </ul>
(A) substrate <ul style="list-style-type: none"> <li>• Impact strength of at least 20kj/m<sup>2</sup></li> <li>• (claim 3) paper, plastic, metals</li> <li>• (claim 4) polymer Markush</li> </ul>	Window (US'370@ col 3, lines 63+) <ul style="list-style-type: none"> <li>• <b>Matsuoka teaches window pane made of polycarbonate having claimed impact strength</b></li> </ul>

THIRD SUBSTRATE (claim 8)

window pane is attached to another layer (frame or second hard coat sheet on opposite side)

E and F=top coat;

the thickness ratio of the prior art is ( 10-50um)/ {(1-10um)+ (10-50um)}

Claim 1

Appellant argues "it is abundantly clear that {Onozawa} nowhere describes the laminated structure of the present invention in which an elastic inter-coat layer is applied to a surface of a substrate and then a coat of at least one radiation curable coating system (F) is applied over the elastic inter-coat layer, with optional pigmented coated layer intervening the coating layer (F) and the elastic inter-coat layer." The examiner respectfully disagrees. As shown above in the diagram, Onozawa teaches a laminated structure comprising an elastic inter-coat layer (the SBS block copolymer of Onozawa) applied to a surface of a substrate (the window of Onozawa) and then a coat of at least one radiation curable coating system applied over the elastic inter-coat layer (the radiation curable urethane acrylate layer of Onozawa).

Appellant does not concur with the examiner's conclusion that a window is typically applied to "another layer." However, appellant goes on to state windows will be place in "horizontal and vertical support elements of a window." Said support elements would constitute "another layer" and would read on the "third substrate" of claim 8. Furthermore, the hard coat sheet may be applied to both surfaces of a window. In such an embodiment, the second hard coat sheet would read on the claimed "third substrate" of claim 8.

Appellant argues Onozawa in view of Matsuoka fails to render obvious the claimed invention because neither reference is drawn to the technology of clear coat systems. As explained above with regards to Mack, the claims are not limited to a

specific technology. Rather, the claims are drawn to a "multi-coat system" on a substrate. Thus, Appellant's arguments are not commensurate in scope with the claimed invention.

According to Appellant, none of the present claims recite an impact strength property for the claimed clear coat system. The examiner agrees. The claimed impact strength limitation is directed to the impact strength of the substrate, not the impact strength of the clear coat system. The window of Matsuoka meets the claimed impact strength limitations and is understood to read on the claimed substrate for the reasons of record.

With respect to Downey and Korpman, appellant argues that both references are drawn to PSAs whereas the claims invention does not employ such a composition. Said argument is noted but is not persuasive because it is not commensurate in scope with the claimed invention. The claim does not contain a negative limitation excluding the presence of a PSA. Furthermore, applicant does not argue that any of the pending limitations inherently exclude the presence of a PSA layer. To the contrary, the claimed "elastic intercoat" is inclusive of A-B-A tri-blocks such as those taught in Downey and Korpman. The references chose to refer to these triblocks as "pressure sensitive adhesive" while appellant prefers to call them "elastic intercoats" but they are compositionally the same (A-B-A styrene triblocks) and have the same Tg. Thus, the prior art PSA layer reads on the claimed "elastic intercoat layer" even though appellant has chosen a different label to refer to the same composition.

Claims 3 and 4



The claim rejection should be maintained for the reasons stated above.

Claims 5-7

The claim rejection should be maintained for the reasons stated above.

Claim 8

The claim rejection should be maintained for the reasons stated above.

Claim 9

The claim rejection should be maintained for the reasons stated above.

Claims 16-18

The claim rejection should be maintained for the reasons stated above.

Claims 19-20

The claim rejection should be maintained for the reasons stated above.

Claim 21

The claim rejection should be maintained for the reasons stated above.

Claim 22

The claim rejection should be maintained for the reasons stated above.

Claim23

The claim rejection should be maintained for the reasons stated above.

Claim 24

The claim rejection should be maintained for the reasons stated above.

Rejection of claims 1-7, 9, 17-19, and 21-24, 35 USC 103, Bergh et al,

VanHavenbergh et al

*For the Board's convenience, the claims and the references have been diagrammed below:*

<b>CLAIMED INVENTION</b>	<b>BERGH in view of VanHavenbergh</b>
(F) radiation curable coating system	Radiation curable layer (Bergh @ abstract) <ul style="list-style-type: none"><li>• 1-20um thick (Bergh @ 0042)</li></ul>
(E) optional coat <ul style="list-style-type: none"><li>• Pigmented or color effect</li><li>• Thickness limitation of claim 1</li></ul>	
(C) <ul style="list-style-type: none"><li>• (claim 2), second substrate (embodiment B)</li></ul>	Optional additional layer (Bergh @ 0036)
(D) elastic intercoat <ul style="list-style-type: none"><li>• Tg of -20C or less</li><li>• (claim 5) Thickness=0.5-500um</li><li>• (claims 6-7) SIS, SEBS, SEPS</li></ul>	Phosphor containing layer with Kraton-G binder (Kraton-G is a SBS polymer) (Bergh @ 0041) <ul style="list-style-type: none"><li>• 10-1000um (Bergh @ 0041)</li></ul>
(A) substrate <ul style="list-style-type: none"><li>• Impact strength of at least 20kj/m<sup>2</sup></li><li>• (claim 3) paper, plastic, metals</li><li>• (claim 4) polymer Markush</li></ul>	Supporting layer (Bergh @ abstract) <ul style="list-style-type: none"><li>• <b>Van Havenbergh teaches a substrate with the claimed impact strength</b></li></ul>

E and F=top coat;  
the thickness ratio of the prior art is ( 10-1000um)/ {(1-20um)+ (10-1000um)}

Claim 1

With respect to claims 1-7, 9, 17-19, and 21-24 as being rejected based on 35 USC 103 as obvious over Bergh in view of VanHavenbergh, Appellant argues that the

thermoplastic rubbery material of Bergh does not form the equivalent of the elastic layer of the present claims. Appellant offers no explanation in support of their conclusion. The rubbery material is taught to be a Kraton-G polymer, which is a series of styrene block polymer known in the art to have the claimed Tg. Therefore, the examiner maintains the position that said layer reads on the claimed "elastic intercoat layer."

Appellant further argues Bergh fails to teach or suggest the multilayer coating system of the present invention. Appellant again offers no explanation in support of their conclusion. As shown in the diagram above, Bergh teaches a radiation curable layer (equivalent to the claimed layer (F)), an optional additional layer (reads on layer (C)), a Kraton-G containing layer (equivalent to claimed layer (D)) and a self-supporting layer (equivalent to the claimed substrate (A)).

With respect to VanHavenbergh, Appellant argues the reference pertains to the field of radiographic screens and not to clear coat systems. As explained above, the claims are not limited with regards to a specific field of endeavor. The claims are drawn to a "multi-coat system" applied to a substrate. Since Bergh and VanHavenbergh are drawn to the same field of endeavor, they are properly combinable to render obvious the claimed "multi-coat system."

#### Claims 1-7

The claim rejection should be maintained for the reasons stated above.

#### Claim 9

The claim rejection should be maintained for the reasons stated above.

#### Claims 17-18

The claim rejection should be maintained for the reasons stated above.

Claim 19

The claim rejection should be maintained for the reasons stated above.

Claims 21-22

The claim rejection should be maintained for the reasons stated above.

Claim 23

The claim rejection should be maintained for the reasons stated above.

Claim 24

The claim rejection should be maintained for the reasons stated above.

Response to Arguments

Appellant's comments have been fully considered. The examiner believes all issues presented in this section of the brief have been fully addressed above and no further comment is necessary.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Kevin R Kruer/

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